

REMARKS

Claims 1-20 are currently pending in the application. By this response no claims are amended, added, or canceled. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

Allowed Claims

Applicants appreciate the indication that claims 6-9 and 11-13 contain allowable subject matter. However, Applicants submit that all of the claims are in condition for allowance for the following reasons.

35 U.S.C. §103 Rejection

Claims 1-4, 10, and 14-19 were rejected under 35 U.S.C. §103(a) for being unpatentable over U.S. Patent No. 6,917,009 issued to Rosenbaum et al. ("Rosenbaum"). Claims 5 and 20 were rejected under 35 U.S.C. §103(a) for being unpatentable over Rosenbaum in view of U.S. Patent No. 6,987,863 issued to Rauh et al. ("Rauh"). These rejections are respectfully traversed.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination

and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2142. Applicants submit that no proper combination of the applied art teaches or suggests each and every feature of the claimed invention.

Claims 1-4, 10, and 14-19 in view of Rosenbaum

The instant invention generally relates to systems for sorting articles according to information (such as addresses or barcodes) on the articles, and more particularly, to systems and methods for efficiently using available video encoding resources when automatic machine recognition (e.g., barcode reading and optical character recognition) does not successfully resolve information needed for sorting articles.

In non-limiting exemplary implementations of the invention, when an imaging device (e.g., a bar code reader or optical character recognition device) does not properly resolve information for handling an article, a determination is made whether the article will be sent to a video coding station. In embodiments, the determination involves comparing a measurement of recent performance of the video coding system to a time allowed for video coding. If a current weighted average response time is less than or equal to the threshold response time, then the article is destined for the video coding system. However, if the current weighted average response time exceeds the threshold response time, then the article may be destined for reprocessing, a sort bin for unresolved articles or a manual handling and coding station. In this manner, the invention allocates video encoding resources when it is determined that encoding can probably be completed in a timely manner or that video coding stations are not busy. Thus, unresolved articles are less likely to consume valuable system resources, including physical space, for a prolonged period of time when video coding stations are saturated.

More specifically, independent claims 1, 10, and 15 recite, in pertinent part:

... determining whether an estimated time for video coding exceeds a determined threshold, if an imaging device does not resolve information needed for handling an article ...

Rosenbaum does not teach or suggest these features. The Examiner admits that Rosenbaum does not disclose determining if an estimated time exceeds a threshold, but asserts that “a time comparison with a threshold must be present” and that it would have been obvious “to implement the time comparison with a threshold in order to prevent the system from creating a huge backlog of uncoded mail pieces.” Applicants respectfully disagree.

Rosenbaum discloses a method and apparatus for processing mail pieces. The system comprises a feeding mechanism 110 that transports mail pieces past a video scanner 120. An image of each mail piece is sent from the video scanner 120 to an OCR processor 130 to undergo processing. Mail pieces whose image is successfully read by the OCR processor 130 are imprinted with a bar code and sorted. Mail pieces whose image is not successfully read by the OCR processor 130 are assigned to a clerk for video coding. While awaiting processing (either by OCR or video coding), the mail pieces are held in a delay loop 121.

In Rosenbaum, when the OCR processor 130 cannot determine the mail piece information, the mail piece is automatically put into holding (step 322, FIG. 3). Then, other coding methods are attempted (step 324). If the other methods are not successful, then the image of the mail piece is grouped into a section by sorting device 170. The images in the sections are sent to video coding stations 200 for manual handling by clerks.

However, Rosenbaum does not teach or suggest determining whether an estimated time for video coding exceeds a determined threshold, as recited in the claimed invention. In fact, Rosenbaum makes no mention whatsoever of an estimated time for video coding or a threshold,

much less of a making a determination based upon a comparison between the two. Instead, Rosenbaum teaches that unsuccessfully read images are automatically sent to the video coding stations for manual processing by clerks, without any concern of an estimated time that such video coding will require. Put simply, there is no suggestion of an estimated time for video coding present in the disclosure of Rosenbaum. Moreover, because unsuccessfully read images are automatically sent to the video coding stations, there is no need for Rosenbaum to even consider an estimated time for video coding.

Moreover, Applicants respectfully disagree with the Examiner's assertion that a time comparison and threshold must be present due to the system processing mail at a rate of 10 pieces per second. First, Applicants submit that the Examiner is mischaracterizing the disclosure of Rosenbaum. Rosenbaum discloses that the feeder 110 transports mail pieces past the video scanner 120 at a rate of approximately 10 mail pieces per second. The mail pieces are then sent downstream to delay loop 121 to await processing, either by OCR or video scanning. Rosenbaum provides no teaching that the rate of transporting mail pieces past the video scanner 120 has any relation to determining whether or not to send mail pieces to video coding stations. Instead, mail pieces are simply buffered in the delay loop until some sort of processing (either OCR or video coding) is successful. As such, the rate of the feeder 110, does not teach or imply an estimated time for video coding or a threshold.

Second, Applicants traverse the Examiner assertion of inherency with respect to these features. The Examiner is reminded of the following guidance that MPEP §2112 provides regarding inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because

inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

...
 "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

Applicants respectfully submit that the Examiner has provided no basis in fact and/or technical reasoning to reasonably support the determination that "a time comparison with a threshold must be present". In fact, Applicants submit that the Examiner has provided no basis in fact or technical reasoning whatsoever, and, rather, has merely presented a naked assertion of inherency. Accordingly, Applicants respectfully request that Examiner provide a basis in fact and/or technical reasoning to support the assertion that a feeder transporting mail pieces past the video scanner at a rate of approximately 10 mail pieces per second necessarily teaches or suggests determining whether an estimated time for video coding exceeds a determined threshold, as recited in the claimed invention.

For the above-noted reasons, Applicants submit that Rosenbaum does not teach or suggest an estimated time for video coding, either explicitly or implicitly. As such, Rosenbaum cannot arguably teach or suggest determining whether an estimated time for video coding exceeds a determined threshold, as recited in independent claims 1, 10, and 15. Therefore,

Rosenbaum does not teach or suggest each and every feature of the claims, and does not render obvious the claimed invention.

Moreover, Applicants submit that claims 3-4, 14, and 16-19 each depend from one of allowable independent claims 1, 10, and 15, and are allowable by virtue of the allowability of the respective independent claims. Also, the applied references do not teach or suggest many of the features of the dependent claims.

Accordingly, Applicants respectfully request that the §103 rejection of claims 1-4, 10, and 14-19 be withdrawn.

Claims 5 and 20 in view of Rosenbaum and Rauh

Applicants respectfully traverse the rejection of claims 5 and 20 on the grounds that Rauh does not qualify as prior art against the instant invention because the filing date of the instant application pre-dates the effective date that Rauh can be used as a prior art reference.

More specifically, the instant application has a filing date of June 26, 2003. Rauh (i.e., U.S. Pat. No. 6,987,863) is a continuation of international application No. PCT/DE03/02796. According to MPEP 706.02 and 1896, the effective date (for use as a prior art reference) of a continuation of an international application is either: (i) the international application filing date (if the conditions in 35 U.S.C. §102(e) are met), or (ii) the U.S. filing date (if the conditions in §102(e) are not met). The U.S. filing date of Rauh is April 22, 2004, and the filing date of the international application on which Rauh is based is August 21, 2003. The instant application was filed before both of these possible effective dates of Rauh.¹ Therefore, Rauh does not qualify as prior art against the instant application.


¹ Since the filing date of the instant application pre-dates both the U.S. filing date and the international application date of Rauh, there is no need to examine the conditions of 35 USC §102(e) to determine the actual effective date of Rauh. Applicants note, however, that the international application PCT/DE03/02796 does not appear to have been

Accordingly, Applicants respectfully request that the §103 rejection of claims 5 and 20 be withdrawn.

CONCLUSION

In view of the foregoing remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

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published in the English language, and, therefore, Rauh appears to have an effective date as a reference of April 22, 2004 (i.e., the U.S. filing date of Rauh).